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(56) Documents Cited
GB 2296360 A **GB 2107103 A**
GB 2106293 A **GB 2097160 A**

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(54) Abstract Title
Entertainment machine

(57) An entertainment machine has a display 4 with at least a first and a second region each having at least one associated symbol, processing circuitry which controls the display, and at least one input which allows a player to move a symbol 48 from the first region 28 to the second region 24. The second region may be a delete region for deleting symbols. Symbols may be moved by touching the display and running a finger across the display. A symbol in the second region may be erased when replaced by the moved symbol, or may exchange places with the moved symbol. The first and second regions may be portions of reels or trail features.

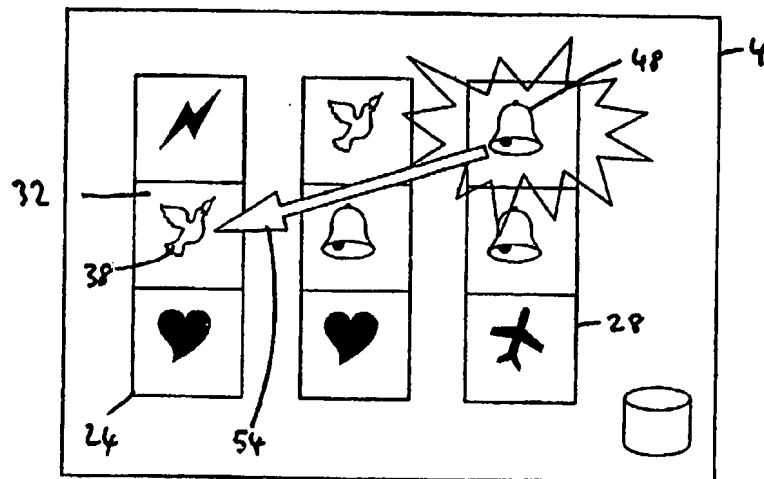
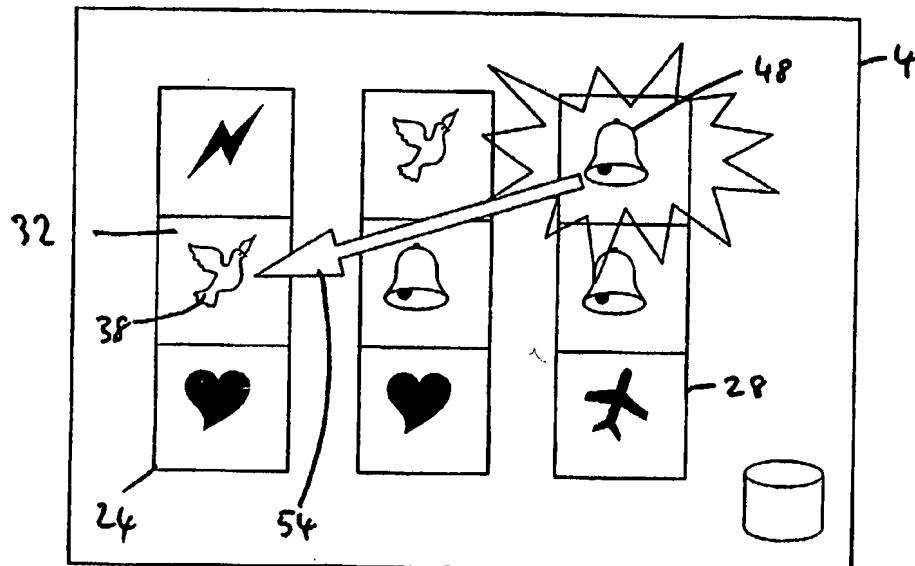
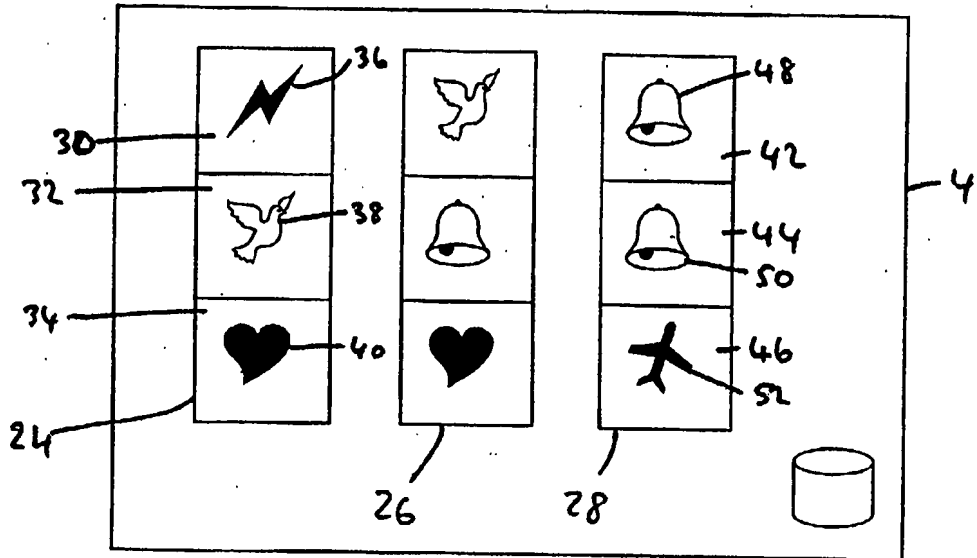
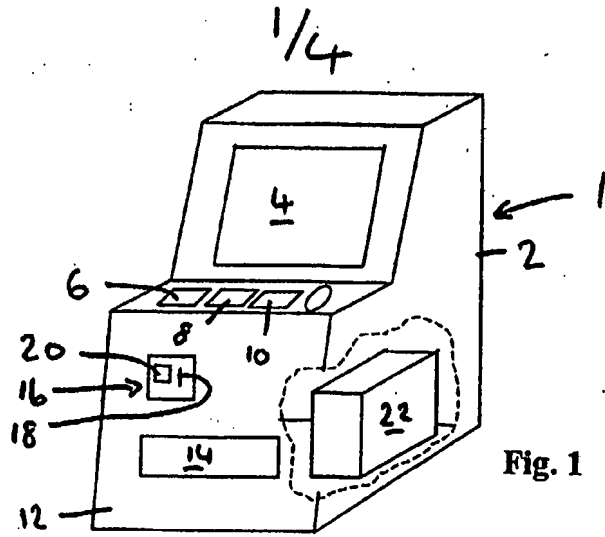


Fig. 3



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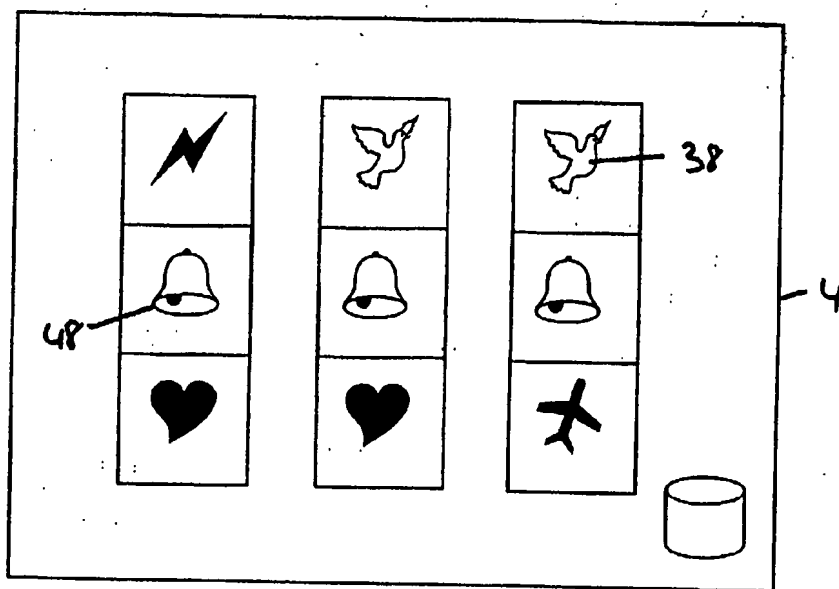


Fig. 4

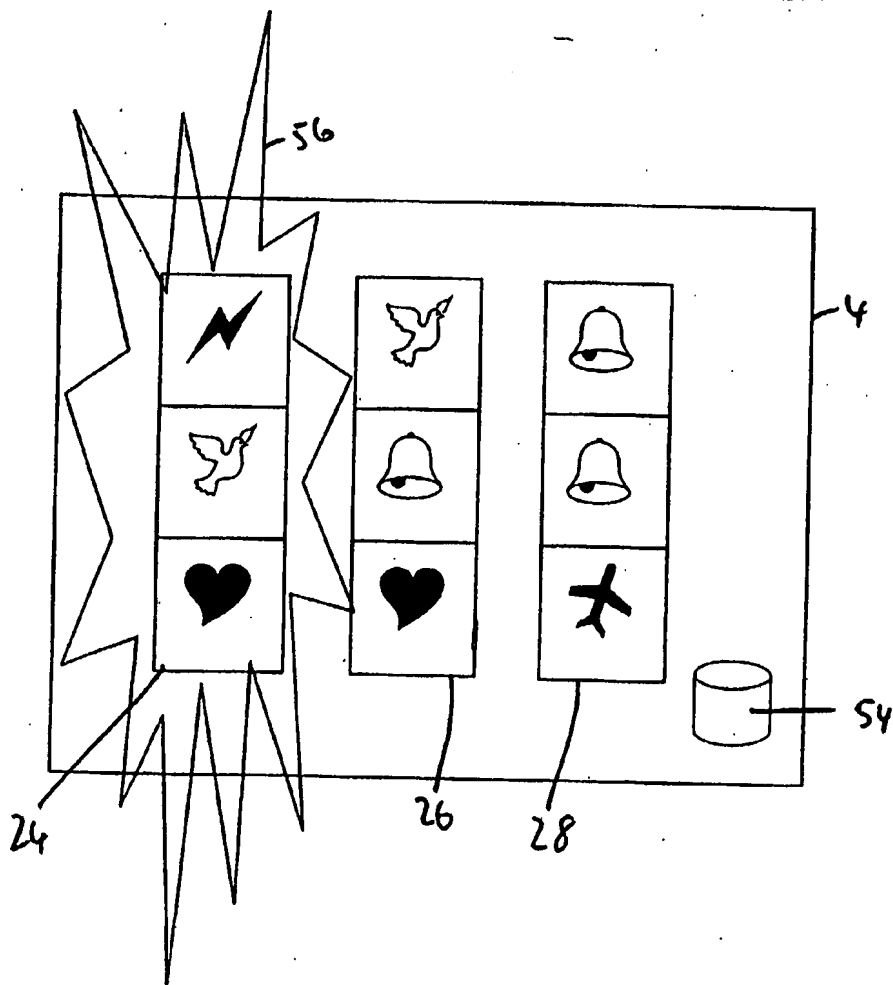


Fig. 5

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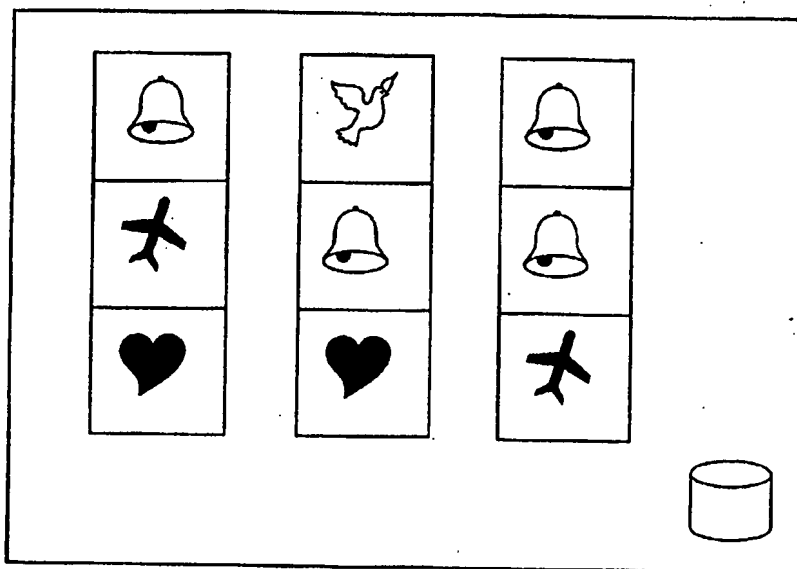


Fig. 6

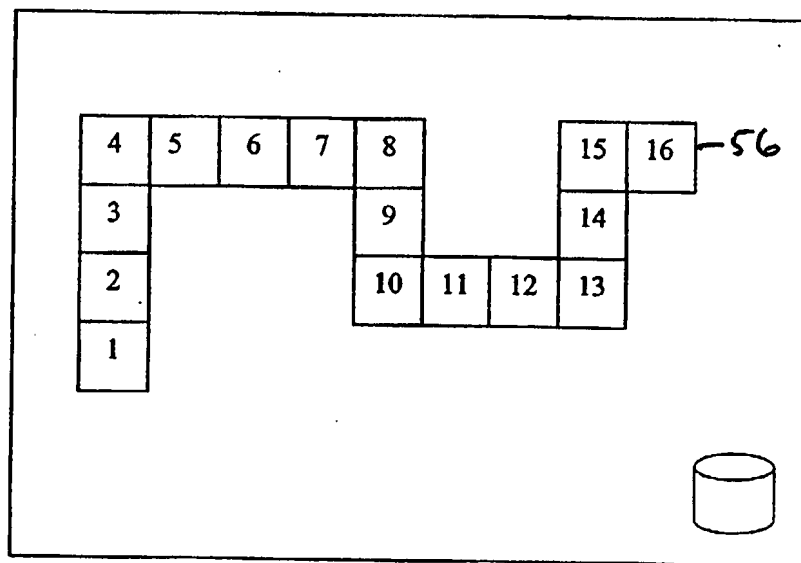
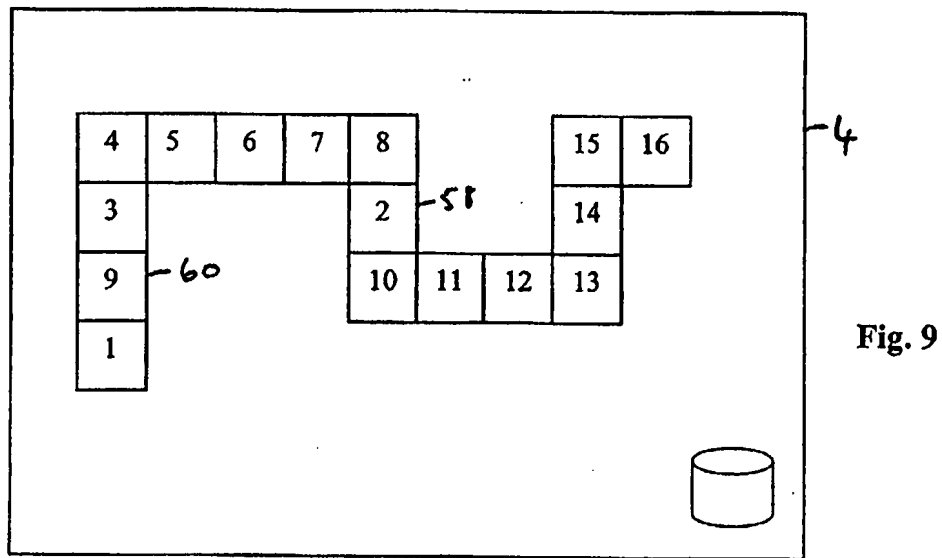
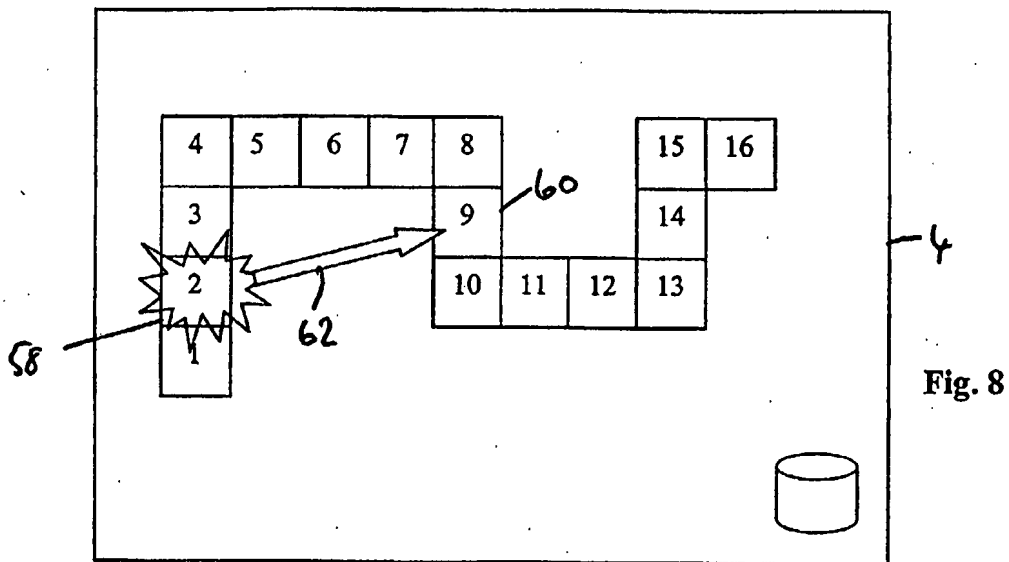


Fig. 7

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AN ENTERTAINMENT MACHINE

This invention relates to an entertainment machine for playing games and,
5 in particular, but not exclusively, to machines that require coins, tokens,
credit or credit-cards to play.

The field of coin, token, credit, or credit card operated amusement and
gaming machines, which are released for play by the introduction of one
10 or more credits, is well developed. The outcome of a game can result in
a win and the subsequent awarding of a prize in relation to the initial
game credit staked by the player.

In particular, games having a plurality of mechanical reels with symbols
15 thereon are known. Such games cause the reels to rotate about the axis of
the reel. A player wins a prize when predetermined conditions are met.
In the basic variation of this game this occurs when the reels are arranged
to provide a horizontal line of symbols of one particular variety. Other
variations of winning combination are know, but generally the winning
20 combinations relate to the reels being arranged to provide predetermined
arrangements of symbols.

Recent machines are provided with video screens that display simulations
of the mechanical reels. It is possible to play any of the known reel
25 based games on these simulated reel video machines.

Games provided by entertainment machines generally have a short life
span; the games rely on being interesting to the player to encourage them
to play the game. When the player is no longer interested then the
30 machine is no longer profitable. Therefore, there is an on going need to
provide variations on known games to maintain a player's interest.

An object of the present invention is to provide an entertainment machine that is interesting to the user.

5 According to a first aspect of the invention there is provided an entertainment machine arranged to provide a game to a player, comprising a display having at least a first and a second region each having associated therewith at least one symbol, processing circuitry arranged to control the display and determine whether symbols displayed
10 in the display regions are displayed in winning arrangements, at least one input allowing the player to control the game displayed on the display by making inputs to the processing circuitry and the at least one input allowing a user to move a symbol displayed in the first region to the second region.

15

An advantage of the present invention is that it provides a game that may be interesting to the user. As will be described hereinafter, such an entertainment machine can provide an interesting variation on a number of well-known games. As such, such a machine may be more appealing
20 to a player since they will be presented with a game that is both familiar, but which also has a new and interesting variation.

Preferably, the display comprises a visual display unit (VDU). This is advantageous since it provides a versatile display that can display any
25 number of different games, symbols, etc.

Conveniently, the VDU is a cathode ray tube (CRT) display that provides a relatively cheap, yet robust display. Alternatively, or additionally, the VDU may be a Liquid Crystal Display (LCD). LCD's are advantageous
30 due to their compact nature.

Preferably, the display is touch sensitive. Such a display is convenient since it provides a display that is easy to use, providing a convenient input to the processing means that is intuitive for a player using the machine.

5

In one embodiment the processing circuitry is arranged to allow a player to specify a symbol with the first region to be moved. A plurality of regions may appear on the screen and the player may be able to specify at least one of these.

10

Further, the processing circuitry may be arranged to allow a user to specify the second region to which the symbol from the first region should be moved. It will be appreciated that the processing circuitry could be arranged to allow a player to specify the second region before the first region is selected, or visa versa.

15

The processing circuitry may be arranged so that a player can specify the first symbol and/or the second region by touching the display. This is advantageous because provides a machine that is intuitive and easy to play. Alternatively, the processing circuitry may be arranged so that a player can specify the first region and/or the second region using a button, switch, or the like.

20

In the most preferred embodiment the processing circuitry is arranged so that a player can specify the first region by touching the display at a region corresponding to the first region, and drag the symbol to the second region, by running a finger, or the like, across the display.

25

Alternatively, the processing circuitry may be arranged so that a player can specify the first region by touching the display at a region corresponding to the first region, and subsequently, touching the display

30

at a region corresponding to the second region to specify the second region.

The second region may be able to contain a plurality of symbols.

5

The processing circuitry may be arranged so that moving a symbol from the first region to the second region erases the symbol in the second region. Alternatively, the processing circuitry may be arranged so that moving a symbol from the first region to the second region replaces the
10 symbol associated with the second region, and visa versa (thus swapping the location of the symbols).

Conveniently, the first region may comprise a portion of a reel. Further, the second region may comprise a portion of a reel. Each reel may be a
15 physical reel or may be a simulation of a reel appearing on the display. (If each reel is a physical reel, it may be provided with a plurality of displays. The plurality of displays may for instance be LCD displays, etc.)

20 Alternatively, the first region and may be the second region may comprise a portion of a trail. In such an embodiment a player may be able to cause the processing means to move portions of the trail.

Indeed, a player may be able to cause the processing means to move any
25 region of the screen onto any other region of the screen. This movement may involve overwriting the second region, or may involve swapping the first and second region.

In one particular embodiment the second region may comprise a delete
30 region, and moving one or more symbols from the first region to the delete region may cause the processing means to delete those symbols

from the game. Such a feature is particularly useful if the first region contains symbols that do not appeal to the player, or which do not fit well with the game in progress, wherein the player can delete those symbols with the hope of obtaining some better symbols.

5

Preferably, the processing circuitry is arranged such that the delete region can only be used in any one game a predetermined number of times. Clearly, such a feature is advantageous since if a player could continually delete first regions that did not appeal the game would become much
10 easier to win.

The processing circuitry may be arranged to allow the delete region to be used only roughly any of the following times in a single game: 1,2,3,4,5,6,7,8,9, or any other number.

15

The processing circuitry may be arranged to determine that symbols are arranged in a winning arrangement if a number of identical symbols are arranged in a row. For example, if the machine is provided with a number of reels (or simulated reels) then a winning arrangement may be
20 provided if the symbols at a front region of each reel are identical. Such an arrangement is well known in the field of entertainment machines having reels.

If the first and second regions comprise portions of a trail then the
25 processing circuitry may determine that a winning arrangement has been made if predetermined conditions are met. For instance, the processing circuitry may represent the players position on the trail by displaying an icon, or causing a region of the trail to flash, etc. and a winning arrangement may be made if the players position coincides with a prize
30 giving region of the trail, etc.

According to a second aspect of the invention there is provided an entertainment machine arranged to provide a game to a player comprising a display arranged to display symbols to the player, processing circuitry arranged to control the display, and at least one input allowing a player to make an input to the processing circuitry, said at least one input functioning as a delete button arranged to cause said processing circuitry to delete one or more symbols from the display.

An advantage of such an arrangement is that it can provide a novel game element to a game, which may hold a player's interest and make them more likely to play the game provided by the machine.

The processing circuitry may be arranged to allow a player to delete symbols if predetermined conditions are met. In some embodiments the processing circuitry may allow a player to delete symbols if the player has caused the processing circuitry to delete symbols only a predetermined number of times, or less, before. For instance a player may only be able to cause the processing circuitry to delete symbols a predetermined number of times in any one game.

In an alternative embodiment the processing circuitry may allow a player to delete symbols in special circumstances. For example as a feature within a game, in the same way as a "nudge" button is only offered to a player in special circumstances in well known games.

The entertainment machine may comprise a plurality of reels that display symbols, with a player winning points according to the arrangement of the symbols on the reels. Further, the entertainment machine may comprise a plurality of reel simulations. The reel simulations may for instance be video representations of the reels. The input functioning as a delete button may allow a player to delete the symbols appearing on a

reel, and be provided with a further set of symbols by the processing circuitry.

According to a third aspect of the invention there is provided a method of
5 controlling an entertainment machine comprising providing a touch sensitive display, and allowing a player of the machine to touch the display and move at least a first region of the display to a second region of the display.

10 Such a method is advantageous because it provides an intuitive way of controlling the machine that may be convenient for a user of the machine.

Allowing a player to move the region of the display may be allowed after predetermined conditions are met. For example the a player may be
15 allowed to move the first region of the screen as a feature of a game; that is after has achieved a predetermined level of success in a game they may be rewarded with extra functionality.

There now follows by way of example only a detailed description of the
20 present invention with reference to the accompanying Figures of which:

Figure 1 shows an entertainment machine according to the present invention;

25 Figures 2 to 4 show screen shots for one embodiment of the present invention;

Figures 5 and 6 show screen shots for a second embodiment of the present invention; and

Figures 7 to 9 show screen shots for a third embodiment of the present invention.

The entertainment machine 1 of Figure 1 comprises a cabinet 2 having at
5 top region thereof a display means 4 (comprising in this case a CRT
screen) arranged to display a game. At a convenient user operable height
are a range of manual switches 6, 8, 10 providing user operable inputs,
which a user can operate to control the action of the machine 1. On a
front face 12 of the machine are provided a pay-out slot 14 to return
10 winnings that a user wins. Further, there is a coin input mechanism 16 as
is well known in the art, having a coin input slot 18 and coin return
button 20.

The entertainment machine further comprises processing circuitry 22
15 which includes a micro-processor, or controller, together with an
associated memory arranged to provide the game, and control the display
screen 4 in order to display the game to the user. The manual
switches 6, 8, 10 provide inputs to the processing circuitry allowing the
user to control the game being played on the machine 1.

20

In this embodiment the display 4 is touch sensitive a player pressing the
display 4 causes an input to the processing circuitry 22.

The processing circuitry 22 is arranged to cause the display 4 to show a
25 simulation of three reels 24,26,28. In this embodiment, three symbols
are visible on each of the reels 24,26,28. As is well known in the art the
reels 24,26,28 can be caused to rotate and thus alter the symbols that are
shown to a player. If a horizontal line of symbols is created across the
middle row of the reels 24,26,28 then the player is awarded a prize, the
30 processing circuitry determining that a winning arrangement has been
made.

Each reel 24,26,28 can be thought of being made up of a number of regions, each containing a symbol. For example the first reel 24 can be thought of being made up of three regions 30,32,34, the first 30 of which
5 contains a lightning symbol 36, the second 32 of which contains a dove 38, and the third 34 of which contains a heart 40. Likewise the third reel 28 is made up of three regions 42,44,46, the first 42 and second 44 of which contain bells 48,50 and the third 46 of which contains an aeroplane 52.

10

In use, a player may touch any one of the symbols appearing on the display 4 and move from the region it is in (the first region) to a different region (the second region). Because the display 4 is touch sensitive the player's touching of the display 4 is detected by the processing
15 circuitry 22, which can then cause the display 4 to move the touched symbol appropriately.

In this embodiment the processing circuitry 22 is arranged such a player touches the display 4 with a finger, at a first region, maintains contact
20 with the display 4, and drags his/her finger to a second region. In other embodiments a player may touch the display 4 once at the first region, lose contact with the display 4 and then retouch the display 4 at the second region and cause to cause the processing circuitry to move the symbols between the first and second regions. In yet a further
25 embodiment a player may be able to specify the first and second regions via the manual switches 6,8,10.

As represented in Figure 3 a player has touched the topmost bell 48 of the third reel 28. The player has dragged his/her finger across the display 4
30 as represented by the arrow 54 to the middle region 32 of the first reel 24 containing a dove symbol 38. As can be seen in Figure 4 the processing

circuitry takes this finger movement as an input and causes the bell symbol 48 and the dove symbol 38 to swap places.

5 The processing circuitry then determines that the player has made a winning arrangement, three bell symbols in a line, and makes a payment to the player.

10 In this embodiment the processing circuitry allows the player to move symbols at any point during a game. However, in other embodiments the processing circuitry may only allow a player to move symbols at predetermined points in the game, as a game feature, perhaps when a predetermined number of points have been accumulated or at other predetermined conditions.

15 In a second embodiment, as shown in Figures 5 and 6 a different functionality is provided. In a bottom corner of the display 4 there is provided a trash can icon 54, that acts as a second region. A player may touch the display 4 (and thus provide an input to the processing circuitry) and select a reel 24,26,28. In this embodiment the player first touches
20 the trash can icon 54 to indicate that he/she wishes to make use of this feature.

As shown in Figure 5, once the feature has been activated by touching the trash can icon 54, a reel is selected by a player touching a reel 24,26,28.
25 In this embodiment a player has touched the first reel 24 and selected it (as represented by the outline 56). The player then drags his/her finger across the display 4 to the trash can icon 54 at which time the symbols on the first reel 24 are deleted and as shown in Figure 6 the player is provided with a further set of symbols.

The number of times that a player may use the trash can icon 54 is limited to two times per any one game.

5 As with the first embodiment the player may not have to drag his/her finger across the screen and may simply have to touch the first and second regions. Further, a player may be able to select a individual symbols from a reel rather than all of the symbols displayed on the reel.

10 As with the first embodiment it is also possible for the player to activate this feature via the manual switches 6,8,10 rather than through the touch sensitive display.

15 A third embodiment of the invention is shown in Figures 7 to 9 in which the processing means 22 causes a trail 56 to be displayed on the display 4. For ease of reference the trail 56 simply contains the numbers 1 to 16, but could contain any number of different symbols, or features as is well known in the entertainment machine art.

20 As shown in Figure 8 in this embodiment, when a predetermined feature is activated, a player can touch the display 4 at an area corresponding to a first region of the trail 58. The player can then drag his/her finger across the display 4 to a second region of the trail 60, as represented by the arrow 62.

25 The processing circuitry then causes the display 4 to show the first and second regions of the display 4 interchanged with one another, as shown in Figure 9.

CLAIMS

1. An entertainment machine arranged to provide a game to a player,
5 comprising a display having at least a first and a second region each
having associated therewith at least one symbol, processing circuitry
arranged to control the display and determine whether symbols displayed
in the display regions are displayed in winning arrangements, at least one
10 input allowing the player to control the game displayed on the display by
making inputs to the processing circuitry and the at least one input
allowing a user to move a symbol displayed in the first region to the
second region.
2. A machine according to claim 1 wherein the processing circuitry is
15 arranged to allow a player to specify the first region to be moved.
3. A machine according to claim 1 or 2 wherein the processing
circuitry is arranged to allow a user to specify a target location (the
second region) to which the first region should be moved.
20
4. A machine according to any one of the preceding claims wherein
the processing circuitry is arranged so that moving a symbol from the
first region to the second region erases the symbol associated with the
second region.
25
5. A machine according to any one of claims 1 to 3 wherein, the
processing circuitry is arranged so that the first from the first region
replaces the symbol in the second region, and visa versa.
- 30 6. A machine according to any one of the preceding claims wherein,
the first region comprises a portion of a reel.

7. A machine according to any one of the preceding claims wherein, the second region comprises a portion of a reel.
- 5 8. A machine according to any one of claims 1 to 6 wherein, the first region and/or the second region comprise a portion of a trail.
9. A machine according to any one of claims 1 to 6 wherein the second region comprises a delete region, and moving one or more
10 symbols from the first region to the delete region causes the processing means to delete those symbols from the game.
10. A machine according to claim 9 wherein, the processing circuitry is arranged such that the delete region can only be used in any one game a
15 predetermined number of times.
11. A machine according to any one of the preceding claims wherein the processing circuitry is arranged so that a player can specify the first region and/or the second region by touching the display.
20
12. A machine according to claim 11 wherein the processing circuitry is arranged so that a player can specify the first symbol by touching the display at a region corresponding to the first symbol, and drag the symbol to the second region, by running a finger across the display.
- 25
13. A machine according to claim 11 wherein the processing circuitry is arranged so that a player can specify the first region by touching the display at a region corresponding to the first region, and subsequently, touching the display at a region corresponding to the second region to
30 specify the second region.

14. A machine according to any one of claims 1 to 10 wherein the processing circuitry is arranged so that a player can specify the first region and/or the second region using a button, switch, or the like.

5 15. An entertainment machine arranged to provide a game to a player comprising a display arranged to display symbols to the player, processing circuitry arranged to control the display, and at least one input allowing a player to make an input to the processing circuitry, said at least one input functioning as a delete button arranged to cause said
10 processing circuitry to delete one or more symbols from the display.

16. A machine according to claim 15 wherein the processing circuitry is arranged to allow a player to delete symbols if predetermined conditions are met.

15

17. A machine according to claim 16 wherein the processing circuitry allows a player to delete symbols if the player has caused the processing circuitry to delete symbols only a predetermined number of times or less before.

20

18. A machine according to claim 16 wherein the processing circuitry allows a player to delete symbols as a game feature.

19. A machine according to any one of claims 15 to 18 wherein the
25 entertainment machine comprises a plurality of reels that display symbols, with a player winning points according to the arrangement of the symbols on the reels.

20. A method of controlling an entertainment machine comprising
30 providing a touch sensitive display, and allowing a player of the machine

to touch the display and move at least a first region of the display to a second region of the display.

21. A method according to claim 20 in which a player is allowed to
5 move the region of the display after predetermined conditions are met.

22. A method according to claim 21 wherein a player is allowed to move the first region of the screen as a feature of a game.

10 23. An entertainment machine substantially as described herein and as illustrated with reference to the accompanying drawings.

24. A method of controlling an entertainment machine substantially as described herein and as illustrated with reference to the accompanying
15 drawings.



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Claims searched: 1-14

Examiner: Michael Logan
Date of search: 24 July 2001

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): G4V (VAA)

Int Cl (Ed.7): G07F 17/32, 17/34

Other: Online: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2296360 A (JPM) see page 3, line 11 - page 4, line 11	1-8,11-13
X	GB 2107103 A (AFM) see page 1, lines 59-99	1-8,14
X	GB 2106293 A (SUMMIT COIN) see page 2, lines 19-59	1-8,14
X	GB 2097160 A (BARCREST) see page 1, lines 35-87	1-8,14

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.